

County Of Erie
Office Of
County Executive
Barry Grossman



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County government is not unlike business enterprises, in that both are structured social systems consisting of groups of individuals working together toward target objectives. Whereas in business a typical organization may be comprised of operations, manufacturing, and sales, county government leans toward public service components such as health, planning, public safety, human services, and the judiciary, to name a few. As a system of systems, each county department is a complex organization that operates optimally when all system elements function in harmony.

The Erie County Department of Public Safety, comprised of 9-1-1 call-taking, user agency dispatching, emergency management, and hazardous material response, can only accomplish its mission twenty-four hours a day, every day, when the individual system components of technology, operations, policies, agency needs, and personnel operate in equilibrium.

Over the past 20 months, Director Todd Geers embraced a systems approach to stabilizing Public Safety readiness and performance by examining then enhancing the fundamental elements which collectively influence the attainment of the Public Safety mission. Not satisfied with simple stability, Todd plans to continually analyze and tweak the system by employing quality improvement methods. A new undertaking, dubbed Personnel Improvement Initiative 2012, aims to elevate personnel management at Public Safety in the areas of development, training, advancement, quality of life, and discipline. I endorse this innovative approach to personnel management.

The citizens of Erie County deserve a perfected Public Safety response system; to settle for less than perfection on each and every call-for-service is to condone past practices, abandon lessons learned, and accept mediocrity.

Sincerely,

Barry Grossman
Erie County Executive

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County Executive

Jerry Mifsud
*Director of
Administration*

Todd Geers
*Director of Public
Safety*

Dale Robinson
*Emergency
Management
Coordinator*

John Grappy
911 Coordinator

Abdul Osman
*Chief Information
Officer*



The other day I sat down and spoke with Mark Sentell, Director of Solutions Strategy for InterAct, our CAD vendor. Mark and his team plan to create a video series focusing on how to consolidate dispatch centers. Since InterAct has been with Erie County Department of Public Safety from the beginning, it was natural for them to want to learn from our mistakes. After we spoke and shared the many ups and downs of our journey to date, I later reflected on that conversation and was amazed at all this center has endured and accomplished. We truly have been through a lot, we are on the backside of recovery, and it is refreshing that we can offer guidance to others so they may enjoy an easier beginning with their consolidation efforts.

Enhanced 9-1-1 started in Erie County in 1993, consolidated dispatch began in 2009, and today we proudly serve 25 fire departments, 9 police agencies, and 6 EMS providers. Some lessons learned along the way include political pressure to open sooner rather than later is tough to resist; low wages are harmful to recruiting; CAD is a hungry monster that is best fed slowly and carefully; 40 agencies sometimes want 40 different things; a county radio system using 3 different frequencies does not mean first responders like carrying 3 radios concurrently; ProQA call interrogation software is expensive, causes delays in call processing, and is just too darned complicated; and, high technology + a professional and caring staff + stable operations + productive agency committees = a great Public Safety work product!

In this issue of the Public Safety Newsletter, we continue the journey to improve our services with innovations such as *I Am Responding* software and, unique in the industry, our own information technology laboratory. We welcome aboard the Sheriff's Mounted Posse and let's go back to school with Call-Taking 101.



*Todd Geers,
Director of Public Safety*

Photo courtesy of Jack Hanrahan, Erie Times News

9-1-1 Call-Taking Fundamentals

One of the most often asked questions from the public is, "Why is the call-taker asking so many questions? Please, just send me help!" I hope to be able to answer this question by providing an explanation of our 9-1-1 call processing procedures.

How many 9-1-1 call-takers and dispatchers are on-duty?



The Erie County 9-1-1 Center has determined our minimum staffing levels utilizing industry standard formulas, based on call volume versus time-of-day and day-of-week, to be eight call-takers and dispatchers—otherwise known as Telecommunicators, plus a shift commander on every eight-hour shift. On every shift, there are two 9-1-1 call-takers, three law enforcement dispatchers, three EMS / fire dispatchers, and a shift commander. The 9-1-1 calls will always be routed or assigned to the two dedicated 9-1-1 call-takers. There are instances, due to heavy call volumes, that the two call-takers are not available due to being on another 9-1-1 call. When this occurs, the shift commander will assign one of the dispatchers to answer the overflow 9-1-1 calls.

What is the 9-1-1 call waiting queue?

Overflow 9-1-1 calls enter the "9-1-1 call waiting queue" and the caller will hear a pre-recorded message stating, "You have reached Erie County 9-1-1, do not hang up! I repeat, do not hang up! Your call will be answered in approximately twenty seconds." The first available call-taker will be presented with the 9-1-1 call in the order it was received. We all understand the sense of urgency when someone dials 9-1-1, and no one wants or expects to receive an audio recording. The public has an expectation that their 9-1-1 call will be answered by a live person, a qualified 9-1-1 call-taker. And they are right! However, the truth is that there are forty-eight dedicated 9-1-1 trunk lines from the selective router (telephone provider) to the Erie County 9-1-1 Center. This means, at any given time, forty-eight 9-1-1 calls may be received without the 9-1-1 caller receiving a busy signal. It would be cost prohibitive, and fiscally irresponsible, to staff forty-eight call-takers per eight-hour shift for occurrences of heavy call volume. Our methodology is simple. We prefer the 9-1-1 call to enter a call waiting queue with the caller hearing a voice recording, advising them that they have reached the Erie County 9-1-1 Center. The only other option would be if we were to reduce our dedicated 9-1-1 trunk capacity. The problem with this option is during heavy call volumes, the 9-1-1 caller may hear a busy signal. Therefore, the caller would have to hang up and redial 9-1-1. What if the caller only had one chance to dial 9-1-1? In our professional opinion, this is not a viable option.



What happens when you dial 9-1-1?

When you dial 9-1-1 from any landline, wireless, or IP device (internet phone service), your 9-1-1 call is selectively routed by the provider through dedicated 9-1-1 trunk lines to the Erie County 9-1-1 Center. Your call is then assigned to the first available call-taker, as determined by a call routing scheme in our phone system called Automatic Call Distribution. The 9-1-1 system detects how many call-takers are available to answer incoming 9-1-1 calls, and then assigns the call to a specific 9-1-1 call answering position.

The call-taker answers the incoming call with our standard greeting, "9-1-1, where is your emergency?" The first series of questions, referred to as case entry questions, are to obtain the location, call back phone number, and nature of the emergency. Let's take a deeper look as to why the questions are asked and in what order: 1) "Where is your emergency?" We need to obtain the physical location of the emergency. As an example, you may be calling 9-1-1 for a family member who may be at a different location than you; 2) "What City, Borough, or Township?" There are duplicate addresses and street names throughout Erie County. As an example, there are ten Chestnut Streets and numerous Main Streets within small boroughs; 3) "What is your call back telephone number?" If we are disconnected, for whatever reason, we need to be able to re-establish communication with the 9-1-1 caller; 4) "What is your emergency?" Do you need an ambulance, fire department, or law enforcement response?

What is ProQA (Priority Dispatch) and why is it important?

Once the case entry questions have been asked, the call-taker will select the appropriate dispatch protocol (EMS or Fire), and will begin asking a series of questions to determine what level of response (resources) are required for this type of incident. Our dispatch protocols are a nationally recognized and adopted system, and are commonly referred to as "ProQA" call interrogation software. Every call-taker and dispatcher has attended a forty-hour course of instruction and been certified by the National Academy of Emergency Dispatch. Our on-staff medical director, Dr. Christopher Cammarata, has reviewed and approved our medical protocols. This protocol system is interfaced with our CAD (computer-aided dispatch) system. The question-answer matrix of ProQA automatically selects the appropriate response determinate, and the CAD incident is sent to the respective dispatch position. While the 9-1-1 call-taker continues with call interrogation to obtain additional, amplifying information, the dispatcher has dispatched the appropriate resources to the incident location. In some instances, the treatment of the patient will begin at the time of the 9-1-1 call, rather than waiting for first responders to arrive. As an example, step-by step CPR instructions may be given by the call-taker for a willing bystander to begin CPR until EMS or first responders arrive.



For fire-related responses, this protocol system provides versatility to the fire chief to specify a certain response on an incident type. A structure fire may be a single-family residential, but then again, may be a multi-residential apartment building. The fire chief can specify through response recommendations which mutual aid departments are to respond and what equipment on either a first, second, or third alarm assignment. Based on the fire ProQA questions and answers, the event type or call determinate dictates the level of response.

A law enforcement response is handled differently by our dispatch center, through a separate set of dispatch protocols defined by our agency. Erie County 9-1-1 initially purchased the law enforcement protocol set from Priority Dispatch, but we discovered the questions contained in this protocol system did not meet the needs of Erie County 9-1-1 or our user agencies. Erie County 9-1-1 staff in conjunction with the law enforcement advisory committee is in the final stages of implementing an internally developed protocol system. Based on event type (i.e., shooting, theft, loud music), defined questions will aid the call-taker in obtaining pertinent information to be relayed to responding police officers. Upon successful implementation, we will work with our law enforcement agencies to refine this protocol system.

In the next issue of our Public Safety Newsletter, we will focus on dispatch fundamentals. I hope this article helps provide a better understanding of our 9-1-1 call processing. If you have any questions or would like to comment, please do not hesitate to contact us by calling our office at 814-451-7920.



John Grappy,
9-1-1 Coordinator

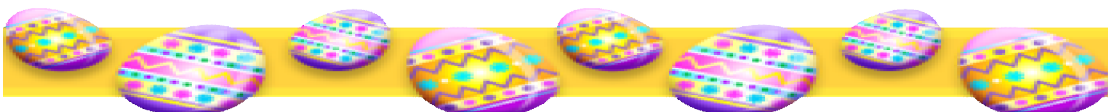


Erie County Sheriff's Office Mounted Posse Joins the Public Safety team!

The Erie County Sheriff's Mounted Posse, a nonprofit service organization comprised of sworn civilian deputy sheriffs, provides both foot patrol and equestrian land search and rescue services. Due to the mobility and agility of horses, the Mounted Posse can swiftly access remote areas where terrain and obstacles may otherwise hinder traditional rescue.

Founded in 1956, the Mounted Posse drills regularly in horsemanship and with fire and police departments, and several of its 23 active members are CPR, first aid, and EMT certified. The Mounted Posse was one of the first organizations on-scene following the devastating Albion tornado of 1985. Recently the Posse responded to two call-outs in 2010 and two more in 2011.

Alongside similar response organizations such as the community emergency response team, dive teams, and the hazardous material team, the Mounted Posse, commanded by Captain Garth Freeland, will now be called-out when needed by the Erie County Department of Public Safety.



Erie County Agencies Awarded Grants



The Northwest Pennsylvania Emergency Response Group (NWPARG) recently approved requests for equipment for the City of Erie SWAT team, the Erie International Airport, and the Erie County Hazardous Materials Response Team.

Although the amount of funding being received by the NWPARG has been drastically cut, the City of Erie SWAT team will receive \$58,000 dollars for body armor; the Erie International Airport will get a bomb dog for \$11,000; and, the Erie County Hazmat Team will receive an approximately \$64,000 *HazMat360* chemical identifier that will help identify unknown substances.

In other NWPARG business, due to the massive cut to Department of Homeland Security (DHS) funding over the past two years, the Pennsylvania Emergency Management Agency (PEMA) is exploring the possibility of combining regional task forces. Task Forces have also been asked to look at only using DHS funding for maintaining current regional capabilities, such as HazMat teams, swift water rescue, SWAT teams, and so forth; specifically, teams that are FEMA-typed and



deployable through the Emergency Management Assistance Compact. Eligible equipment is contained in the Authorized Equipment List (AEL) that can be found on the Responder Knowledge Base website at: <https://www.rkb.us/mel.cfm?subtypeid=549>.

Equipment for everyday use and replacement equipment are not eligible. Everyday use equipment is defined as equipment that is common for a like department or agency. For example, a Hurst tool would be considered everyday use since many departments have them. Even if equipment is found on the AEL it still must be justified by the regional Task Force's Investment Justifications (IJs). The IJs are developed by the Task Force's subcommittees during the grant application process. If the equipment does not fit into one of the IJs, it will not be approved. All equipment requests are subject to the approval process of PEMA and DHS.



Dale Robinson,
Erie County Emergency Management Coordinator

Virtualization: A Smart Way to Save Money and Space



Oftentimes one of the challenges that face agencies like the Erie County Department of Public Safety (ECDoPS) is to have faster turnaround for software development life cycle along with the preparation and readiness of environment to address quality product releases on different configurations, operating systems, software upgrades, and patches. As a result, ECDoPS decided to create a virtualized computer laboratory that will mitigate software upgrade and patch problems from vendors before installing in our work environment. Further, by implementing a virtualization

platform in a virtualized lab, the IT department in conjunction with vendors can accelerate software project completion by increasing productivity of IT technicians, developers, and testers; by reducing hardware and administrative work; and by improving the quality and robustness of applications that are deployed in production without installing in a live environment. The purpose of this article is to explain what virtualization is and the importance of having a virtualized computer lab.

Virtualization is a method of running multiple, independent operating systems on a single physical computer. It is a way of maximizing physical resources to leverage the investment in hardware. Virtualization technology achieves higher server density. It is now feasible to turn a very inexpensive 1U dual-socket, dual-core commodity server into 8 or even 16 virtual servers that run 16 virtual operating systems.



Virtualization technology allows multiple operating systems and software applications to run concurrently on a single x86 (Intel or AMD processor) computer as individual virtual machines.

Those virtual machines encapsulate entire physical systems — hardware configuration, operating system and applications — into a self-contained package that can be run on any x86 system.

Benefits enabled by software virtualization include the following:

- Run multiple operating systems and versions of Microsoft® Windows®, DOS, Linux, Solaris x86 and NetWare simultaneously on a single machine;
- Consolidate multiple virtual test machines into a single physical system; build complex multi-tier environments on a single computer;
- Move between operating system environments without repartitioning or rebooting;
- Create libraries of virtual machines for each operating system and network configuration with preconfigured test environments and tools;
- Allow several developers simultaneous access to a virtual machine; and,
- Automate entire test sequences, including ones that require system reboots.

Most importantly, a virtualization platform fits seamlessly into existing environments, without disruption to IT infrastructure or processes. It provides these benefits by improving the efficiency of the tools and processes that are already in use. Because virtual machines are exactly like physical hardware, the same operating system and applications - as well as the same development and testing tools - can be used in a virtualized environment.



In conclusion, a virtualization lab helps application development teams to rapidly streamline software development, testing, and deployment, while reducing hardware and maintenance costs. By standardizing the software virtualization platform throughout a development organization, many thousands of enterprise development IT managers have successfully accelerated project completion, reduced costs, and improved software quality. There are many choices to mitigate software upgrade and patch problems from vendors before installing in a work environment; however, implementing a virtualized testing environment for an organization is the wisest choice.



Abdul Osman,
Chief Information Officer
Erie County Department of Public Safety



A CLOSER LOOK.... Albion Fire Department

My name is Scott Hyde, current Fire Chief of the Albion Fire Department in western Erie County located near the Ohio line. Anytime you get asked to write a few words about the agency you serve, it's always a true honor to pay homage where due.

Albion is a small, mainly agricultural, community with some light industry. State Correctional Institute – Albion is also in our area, which at times can be trying. Albion Fire Department will be celebrating its 100th year of service to the citizens of Albion Borough and Conneaut Township in June of 2013. The celebration will host a fireman's parade, water battles, street dance and games for the children. We hope for a large turnout to help us celebrate 100 years of public safety.

Albion Fire Department boasts 20 active members and 12 emergency medical technicians (EMT). Our department is 100% Basic Vehicle Rescue Technician certified and 80% certified as Special Vehicle Rescue technicians, all through the Pennsylvania Department of Health. We currently operate a 1999 Rescue / Pumper which is certified through the Pennsylvania Department of Health in the voluntary rescue certification program. We are certified to the basic level and are due to recertify in 2013, at which time we will certify as an "operations" rescue vehicle. We are currently waiting to take delivery (April 22, 2012) of our new Toyne Pumper / Tanker to replace a 1993 Quality / HME pumper / tanker. The new engine will carry 2000 gallons of water.





We also operate a BLS ambulance. Our current ambulance service operates Monday through Friday, 9:00 a.m. to 5:00 p.m., with contract EMT's through Emergycare Inc. Prior to that, we contracted with West County Paramedic Association. This program has been very productive for our department and has allowed us to endure proper and more aggressive EMS response to our citizens of Albion Borough & Conneaut Township. Since providing this service to our community, we can proudly boast three confirmed life threatening saves utilizing contract EMT's operating our ambulance. We also supplement our contract EMT service with our EMTs, running a weekly EMS crew night from 9:00 p.m. to 5:00 a.m. Every weekday crew is asked to serve a weekend EMS duty which starts Friday at 9:00 p.m. and runs through Sunday morning at 5:00 a.m. every fourth weekend.

Last year, Albion Fire Department completed the year just two calls shy of 500 emergency runs, which is, by far, the most emergency incidents we have ever seen. It should be noted that we have seen a steady increase in emergency responses since 2009. All indications so far this year show we will meet or exceed last year's numbers. Our main emergency base seems to be EMS incidents followed by fires, motor vehicle accidents and mutual aid responses mainly south of us into Crawford County.

We require the following training before a probationary fire fighter is allowed to actually respond as an Albion First Responder: Essentials of Fire Fighting (Delmar), Hazardous Materials Operation Level, ICS 100, 200, NIMS-Fire Service, BVRT, EVOC and some form of emergency first aid (EMT or Emergency Responder). Prior to completing all the required training, probationary first responders are allowed to respond on the second due engine or ambulance to at least get to the scene and observe what actually happens.



Personnel meet the first, second and fourth Wednesday of the month for fire / rescue and EMS training. The third Wednesday is our business meeting. Currently, our personnel are attending a Pennsylvania State Certified Engine Company Operations course which will be followed by a Trucks Company Operations course. Our officers have also been busy attending classes starting with a Strategy & Tactics course at Kuhl Hose Fire Department, followed by a Task Force 1 program called Fear Factor and Command 101 course in Pittsburgh, and a one day course offered at Conneaut Lake Park Fire Department on Railway Emergencies. This has spun off with several officers placing applications for advanced training in Colorado dealing with railroad tank car emergencies and incident management.

Everyone that I have come into contact with that is being dispatched by the ECDOPS center always seems to ask, "So, how is it going for you guys?", and I must say that last year when I was told by our municipalities that we were going to be coming to the "new dispatch center", my thoughts turned to "Oh no, here we go". At first, I allowed myself to get caught up in all the hustle and bustle of the Erie Times News articles, the TV reports of all the horrible mistakes being made at the ECDOPS, and I just turned against them. As "D-Day" got closer and I knew there was no going back and decided this is either going to work or be a nightmare. At least for Albion and my staff, the change to the dispatch center has been somewhat smooth. There have had a few hiccups, but nothing that couldn't be worked out. Do I miss my old comm center? Of course I do. Those dispatchers were like family, but we don't have them anymore - we have a new family we are now getting to know.

I can say I'm completely excited about the newer technology at the fingers of our dispatches. Albion has built in to our pre-planned buildings key holder info, building hazards, floor plans when they were made available to us. We have even had the Pa Tier II info entered into the pre-plans for that building. Once on scene, the incident commander can request all information from the dispatcher as to hazards and

handicapped apartments in our local elderly housing complex. I have requested overhead views of streets / hydrants and township roads for training of new drivers, and have also asked for overviews of larger buildings in our fire district for officer development and training use in our pre-plans.

I used to hear that the dispatch center offers us nothing. My response to that would be, if you don't offer it to them they can't build it into the system. It is our responsibility to provide all details we want given to us on dispatch or during the first few minutes of the emergency. As the old saying goes, "This stuff doesn't grow on trees, you know"!



Finally, I would like to say thank you to the dispatchers. Their job is tough. I've been a public safety dispatcher for over 20 years and when I first sat behind that console and radio, I freaked out. Yes, I made my fair share of mistakes just like some of those folks do. However, my suggestion is, if you've never sat in the hot seat, how can you find fault with what these folks are doing? I might suggest schedule a day when you can sit side by side with a dispatcher with a training headset on and listen to some of the things that people calling in are trying to report. I truly believe many of you would be utterly surprised and might not be so quick to jump to conclusions and point fingers. To the comm techs - you are doing a good job. It takes time and patience, stay the course.

Scott Hyde
Fire Chief, Albion Fire Department